

HYPERDESMO® AQUA

Very Fast Drying, Water based, Fully Aliphatic Polyurethane Coating for Waterproofing and Protection

DESCRIPTION

HYPERDESMO® AQUA based on **ALCHIMICA's** innovative water based polyurethane dispersion technology, protects structures in an environmental way, offering waterproofing in the most difficult conditions. **HYPERDESMO® AQUA** provides excellent resistance to ponding water with high resistance to difficult weather conditions and as it is aliphatic, it offers excellent resistance to UV radiation and improves the energy performance of a building by reducing surface temperatures. It is thixotropic, with excellent workability and quick drying which makes it easy to apply to a variety of substrates such as concrete or metal ceilings, polyurethane foam, etc. It is easily applied by brush, roller or spray in two or more coats on both vertical and horizontal substrates, forming an elastic and hydrophobic film.

COMPLIANCE - CERTIFICATION

CE certified acc. EN 1504-02:2004

No: 2928-CPR-55. See table below.

RECOMMENDED FOR

Waterproofing, Painting and Protection of:

- PU foam,
- Roofs,
- Light roofing made of metal or fibrous cement,
- Under tile applications such as wet rooms
- Protection of concrete/reinforced concrete from carbonization

LIMITATIONS

Not recommended for:

- Unsound substrates: (in some cases, application is possible with the use of geotextile reinforcement; please contact our technical department for consultations).

FEATURES & BENEFITS

- Water based
- Very fast drying
- Easy to apply & repair.
- Thixotropic
- Seamless.
- Elastic.
- Highly resistant to stagnating water (ensure proper adhesion-see suitable primers list).
- Water vapor transmission: The film breathes so there is no accumulation of humidity under the coat.
- Excellent weather and UV resistance. The white color reflects much of the solar energy and so reduces the internal temperature of structures considerably.
- Easy coloring of product with almost any water-based pigment paste available at hardware stores, subject to adequate tests.
- Compatible with all standard **ALCHIMICA's** Primers.

APPLICATION PREREQUISITES

Can be successfully applied on:

Concrete, fibrous cement, cement roof tiles, wood, galvanized steel, PU foam. For information about other substrates, please contact our tech department.

Standard concrete substrate conditions:

- Hardness: $R_{28} = 15 \text{ Mpa}$.
- Humidity: $W < 10\%$.
- Temperature: $5-35 \text{ }^{\circ}\text{C}$.
- Relative humidity: $< 85\%$.

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Suitable primers: **AQUADUR**, **AQUASMART[®]-DUR**, **AQUASMART[®]-PU PRIMER-2K** or **MICROSEALER-50**, depending on the substrate. Please contact our technical department for primer selection advice.

APPLICATION PROCEDURE

Clean the substrate using a high-pressure washer, if possible. Remove oil, grease and wax contaminants. Cement laitance, loose particles, mould release agents, cured membranes must also be removed. Surface irregularities should also be filled.

Priming:

Apply recommended primer according to Technical Data Sheet specifications.

For non-demanding applications (where standing water or negative water pressure is not an issue) prime with same material by diluting with 15% water. For more professional applications, apply primers as per above list or contact our technical department for further information.

Mixing:

Use a low speed (300 rpm) mixer.

Application:

Apply with roller, brush or airless spraying in two or more coats.



Do not apply under conditions of extreme wet weather or imminent rain or near freezing temperature.

CONSUMPTION

- Applied with roller or brush -
First coat: 0.6-0.8 kg/m².
Second coat: 0.6-0.9 kg/m².
- Applied by airless spraying: 0.5 kg/m² per coat.
Minimum total consumption: **>1.5 kg/m²** for waterproofing, depending on project requirements.
For use as a protective paint, recommended consumption is 0,5 Kg/m².

CLEANING

Clean tools and equipment immediately with water.

PACKAGING

Plastic pails of 12 kg

SHELF LIFE

Can be kept for 12 months minimum in the original unopened pails in dry places and at temperatures of 5-25 °C. Once opened, use as soon as possible. Protect from freezing conditions.

SAFETY INFORMATION

The MSDS (Material Safety Data Sheet) is available on request.

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TECHNICAL SPECIFICATIONS

In liquid form (before application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Viscosity (Brookfield)	cP	ASTM D2196-86, @ 25 °C	20,000-40,000
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, @ 20 °C	1.45-1.55
Required application temperature	°C	-	> 5

In cured form (after application):

PROPERTY	UNITS	METHOD	SPECIFICATION
Service temperature	°C	-	-20 to 90
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	70
Tensile strength at break @ 23 °C	Kg/cm ² (N/mm ²)	ASTM D412 / EN-ISO-527-3	50 (5.0)
Elongation @ 23 °C	%	ASTM D412 / EN-ISO-527-3	> 300
H ₂ O absorption	%	-	< 5
QUV Accelerated Weathering Test (4hr UV, @ 60 °C (UVB-Lamps) & 4hr COND @ 50 °C)	-	ASTM G53	passed (2,000 hours)

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CLASSIFICATION ACCORDING TO EN 1504-02

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2928-CPR-55
EN 1504-2:2004 2928 HYPERDESMO® AQUA Product for protection and repair of concrete structures www.alchimica.com

Essential characteristics	Performance	Harmonized technical specification
CO ₂ permeability, m	$S_D > 50$	EN 1504-2:2004
Permeability to water vapor, m	$S_D < 5$ Class I	
Capillary absorption, $\text{kg/m}^2 \cdot \text{h}^{0.5}$	$w < 0.1$	
Adhesion strength by pull-off test, N/mm^2	≥ 1.5	
Abrasion resistance, mg	< 3000	
Impact resistance, N.m	≥ 4 Class I	
Reaction to fire	Euroclass F	

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